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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/438,436	11/12/1999	JEFFREY MARK ACHTERMANN	AT9-99-655	9315

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EXAMINER
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TODD, GREGORY G

ART UNIT	PAPER NUMBER
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2157

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/438,436		ACHTERMANN ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Gregory G. Todd		2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-15, 17-26 and 28-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15, 17-26 and 28-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Response to Appeal***

1. This is a sixth office action in response to applicant's appeal brief filed, 31 August 2005, of application filed, with the above serial number, on 12 November 1999 in which no claims have been amended. Claims 1-4, 6-15, 17-26, and 28-33 are therefore pending in the application.

2. In view of the Appeal Brief filed on 31 August 2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-7 recite the limitation "the method of claim 5" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claims 17-18 recite the limitation "the system of claim 16" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claims 28-29 recite the limitation "the program product of claim 27" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 12-14, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zolnowsky (hereinafter "Zolnowsky", 6,779,182) in view of Dorfman et al (hereinafter "Dorfman", 6,134,313).

Zolnowsky teaches, substantially, the invention as claimed including job and thread prioritized scheduled (see abstract).

As per Claims 1, 12, and 23, Zolnowsky discloses a connection scheduling method, wherein Zolnowsky discloses:

determining if a job is available for scheduling (job scheduling) (at least col. 5, lines 13-21);

determining, in response to said step of determining if said job is available, if a session is available, wherein said session is included in a pool of sessions (threads),

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said pool of sessions having a preselected one of a set of priority levels corresponding to a priority level of said job and wherein said session effects an execution of said job (runnable threads in queue of threads with dispatch priority) (at least col. 6, lines 33-65); and

launching said session to effect said execution of said job, if said session is available (thread (and processor / job) selected for execution) (at least col. 7, lines 17-28; col. 8, lines 43-60).

While Zolnowsky does teach scheduling errors in thread queues (at least col. 8, lines 3-17), Zolnowsky fails to explicitly teach the step of launching an error handling thread in response to an error condition, said error handling thread releasing said session. However, the use and advantages for using such an error handling thread is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Dorfman. Dorfman teaches having a session queue wherein when an error (exception) occurs, the session shuts down the thread and releases the session and resources (at least col. 11 line 38 - col. 12 line 20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Dorfman's session release into Zolnowsky as this would enhance and allow the system of Zolnowsky to be prepared for error handling and as Dorfman teaches, when an exception does occur, it is desirable to release all running resources for the session.

As per Claims 2, 13, and 24.

session comprises a thread (thread) (at least col. 6, lines 33-65).

As per Claims 3, 14, and 25.

creating a connection to a target system for execution of job (target processor being selected) (at least col. 10, lines 21-42).

6. Claims 4, 6-9, 15, 17-20, 26, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zolnowsky in view of Dorfman and further in view of Northrup (hereinafter "Northrup", 6,671,713).

As per Claim 4, 15, and 26.

Zolnowsky and Dorfman do not explicitly disclose determining if connection is an existing connection, and creating the connection is performed if connection is not an existing connection. However, Northrup teaches if a connection primitives wherein a thread communication service will run upon request for communication (at least col. 4, lines 22-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Northrup's connection primitives into Zolnowsky and Dorfman's system as Northrup teaches communication occurring upon connection commencing.

As per Claims 6, 17, and 28.

Zolnowsky and Dorfman fail to explicitly disclose changing value of a job state from a first value to a second value in response to said launching of said error handling thread. Northrup teaches the use of a thread returning an error condition and "error" state (at least col. 56, lines 33-36; col. 55, lines 27-35; col. 27 line 66 - col. 28 line 15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

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invention was made to incorporate the use of having a value being changed when an error occurs as Northrup discloses into Zolnowsky and Dorfman's system as this would reduce scheduling errors in Zolnowsky and Dorfman's system and define conditions of the thread.

As per Claims 7, 18, and 29.

the first value signaling that the job is available for scheduling (non-errors not being caught in verification step) (at least Zolnowsky col. 8, lines 11-17).

As per Claims 8, 19, and 30.

Zolnowsky teaches retrying the steps of determining if a job is available for scheduling, determining if a session is available, and launching said session (at least Zolnowsky col. 8, lines 11-17; error resulting in selecting correct queue). Dorfman teaches starting another session in response to an error condition (at least col. 11 line 38 - col. 12 line 20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Dorfman's session release into Zolnowsky as this would enhance and allow the system of Zolnowsky to be prepared for error handling and as Dorfman teaches, when an exception does occur, it is desirable to release all running resources for the session and begin a second session.

As per Claims 9, 20, and 31.

Zolnowsky and Dorfman fail to explicitly disclose the step of retrying to be repeated until a predetermined time interval has elapsed. However, the use and advantages for retrying tasks based on elapsed time is well known to one skilled in the

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art at the time the invention was made as evidenced by the teachings of Northrup (at least Northrup col. 10 line 49 - col. 11 line 18). Northrup discloses relaunching after a delay period after it attempts to relaunch immediately. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Northrup's time-interval thread launching into Zolnowsky and Dorfman's system because this would further allow tasks that could not be completed and relaunched the second time to attempt again at a later time when there might be less network congestion, for example.

7. Claims 10-11, 21-22, and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zolnowsky in view of Dorfman and Northrup and further in view of Rangarajan et al (hereinafter "Rangarajan", 6,260,077).

As per Claims 10, 21, and 32.

Zolnowsky, Dorfman and Northrup fail to explicitly disclose registering a callback method in response to an expiry of a predetermined time interval. However, the use and advantages for responding to a time expiration is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Rangarajan (at least Rangarajan Abstract; col. 17, lines 13-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Rangarajan's responding to an expiry of an elapsed time into Zolnowsky, Dorfman and Northrup's system because this would invoke an event to cause a thread to occur upon, for example an error, and allow the client application to perform its function and then



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return control to Zolnowsky, Dorfman and Northrup's host computer (target system) upon the predetermined time interval.

As per Claims 11, 22, and 33.

Zolnowsky, Dorfman and Northrup fail to explicitly disclose the steps of determining if a job is available for scheduling, determining if a session is available, and launching said session being performed in response to an invoking of a callback method by a target system, the target system for execution of said job. However, the use and advantages for a target system responding to an elapsed time expiration is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Rangarajan (at least Rangarajan Abstract; col. 17, lines 13-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Rangarajan's responding to an expiry of an elapsed time into Zolnowsky, Dorfman and Northrup's system because this would invoke an event to cause a thread to occur upon, for example an error, and allow the client application to perform its function and then return control to Zolnowsky, Dorfman and Northrup's host computer (target system) upon the predetermined time interval, and thus have the requested task be entered into the thread and be completed.

### ***Response to Arguments***

8. Applicant's arguments, see pp. 10-13, 16-17, filed 31 August 2005, with respect to the rejection(s) of claim(s) 1-3, 8, 12-14, 19, 23-25, and 30 under Zolnowsky have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

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However, upon further consideration, a new ground(s) of rejection is made in view of Dorfman.

Applicants further argue a) Northrup does not teach features of claims 4, 15, and 26; and b) Zolnowsky does not teach features of claims 9, 20, and 31.

In response to a) Northrup teaches connection primitives wherein a thread communication service will run upon request for communication (at least col. 4, lines 11-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Northrup's connection primitives into Zolnowsky's system as Northrup teaches communication occurring upon connection commencing. Such a "connection" as stated in the claims is found in Northrup as any connection to another system is going to have an initial connection and for an initial connection to occur it has to be aware that the connection is initial and thus determined not to be an existing connection.

In response to b) As Applicant agrees at page 15, Northrup teaches performing desired operations at a predefined time and further, such operations as a result of some event later communicated to the service. Thus, such an event, as described above, being an error state, as it would have been obvious to one of ordinary skill at the time the invention was made that the main reason a service would be retried at a later time could only be due to an "error", such as a thread not being available or an error in the thread itself, and that there would be absolutely no reason to retry something later after it is initially tried except for if there was a problem or "error" condition being met.

In addition, Newly cited Hogle et al (see col. 8-9) and Periwal et al (see col. 12) also teach error handling and the use of exceptions.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Newly cited Hogle et al and Periwal et al, in addition to previously cited Cohen et al, Bhagat et al, Silva et al ('760), Hanif et al, Dixon et al, Herbert et al, Brackett et al, Marshall, Teng, Batra, Behm et al, Davis et al, Murray, Trugman, Morris et al, Sundararajan, Beaulieu et al, Farrell et al, Bigus, Silva et al ('537), Zolnowsky and Coffman et al and Ross et al are cited for disclosing pertinent information related to the claimed invention.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory G. Todd whose telephone number is (571)272-4011. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm w/ first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory Todd 

Patent Examiner

Technology Center 2100

  
ARJO ETIENNE  
PRIMARY EXAMINER